

**AIR EMISSIONS**  
**NOTICE OF CONSTRUCTION APPROVAL ORDER**  
**CONDITIONS AND RESTRICTIONS**

**REGULATORY AUTHORITY:**

Pursuant to the Washington State Department of Ecology (Ecology) General Regulations for Air Pollution Sources, Chapter 173-400 Washington Administrative Code (WAC), and Controls for New Sources of Toxic Air Pollutants, Chapter 173-460 WAC, Ecology finds the following:

**FINDINGS:**

1. The United States Department of Energy proposes to modify their existing facility (Hanford) located in Richland, Washington.
2. A Notice of Construction (NOC) application was submitted on July 31, 2012, and a re-issue (signed application) was received August 22, 2012. The application was found to be complete on September 7, 2012.
3. The required fee was received by the Fiscal Office on August 20, 2012.
4. Hanford is an existing major stationary source of a regulated pollutant.
5. The proposed project consists of installing and operating a diesel generator to support two tent structures (211ED and 212ED) located in the 200 East Area.
6. Hanford is located in a Class II Area designated as “attainment” for the purpose of NOC permitting for all pollutants.
7. Emissions of criteria pollutants from the proposed project are below the Prevention of Significant Deterioration Significant Emission Rates.
8. The generator engine is a constant speed engine and is not subject to standards listed in 40 CFR 89.113
9. Criteria air pollutant emissions from the proposed project are below the exemption levels in WAC 173-400-110(5)(d) with the exception of nitrogen oxides.
10. Modeling results for nitrogen oxides emissions demonstrate the generator will not exceed National Ambient Air Quality Standards (NAAQS) for nitrogen dioxide.
11. Toxic Air Pollutants (TAPs) from the proposed project are below the De Minimis of WAC 173-460-150 with the exception of benzene, acrolein, 1,3 butadiene, formaldehyde, acetaldehyde, naphthalene, and diesel engine exhaust particulate (DEEP).
12. Modeling is required as the TAPs from the proposed project for benzene and DEEP exceed the small quantity emission rates (SQERs) of WAC 173-460-150.

13. Best Available Control Technology (BACT) and Toxics-Best Available Control Technology (T-BACT) for this project has been determined to be the use of 40 CFR Part 89 Tier 3 compliant engines.
14. The proposed project, if constructed and operated as herein required, will provide BACT and T-BACT.
15. The proposed project, if operated as herein required, will be in accordance with applicable rules and regulations, as set forth in Chapter 173-400 WAC and Chapter 173-460 WAC, and the operation thereof will not result in ambient air quality standards being exceeded.
16. The project will have no significant impact on air quality.

**THEREFORE, IT IS ORDERED** that the project as described in said NOC application, and as detailed in emission estimates, and impact and control technology assessments submitted to Ecology in reference thereto, is approved for construction, installation, and operation, provided compliance with the conditions and restrictions described below. This ORDER will be identified as NOC APPROVAL ORDER **DE12NWP-002**.

## **1.0 APPROVAL CONDITIONS**

### **1.1 Effective Date**

The effective date of this authorization will be that as signed in Section 3.0. All references to procedures or test methods will be to those in effect as of the effective date of this ORDER.

### **1.2 Emission Limits**

- 1.2.1 Visible emissions will not exceed 20%.
- 1.2.2 Emissions will be below the emission requirements in Table 1.

**Table 1: Emission Requirements (DE12NWP-002)**

| <b>Pollutant</b>                                                     | <b>Emission Requirement<br/>(g/kW-hr)</b> |
|----------------------------------------------------------------------|-------------------------------------------|
| Non-methane hydrocarbons (NMHC) + nitrogen oxides (NO <sub>x</sub> ) | 4.0                                       |
| Carbon Monoxide (CO)                                                 | 5.0                                       |
| Particulate Matter (PM)                                              | 0.3                                       |

- 1.2.3 The generator shall use ultra-low sulfur diesel fuel, with a maximum sulfur content of 0.0015 percent by weight (15 ppm).

### **1.3 Compliance Demonstration**

- 1.3.1 Compliance with Approval Condition 1.2.1 will be met by:
  - 1.3.1.1 Visible emission surveys will be conducted a minimum of once per year and the result(s) recorded.
  - 1.3.1.2 If visible emissions are observed for more than 10 consecutive minutes, an attempt to identify the cause(s) of the visible emissions will be made and

those results recorded. The recorded entry also will identify any corrective actions taken and the likely frequency of a future recurrence.

1.3.1.2.1 If the event is likely to recur, and cannot be demonstrated to consist of water vapor, a determination of opacity will be made using EPA Method 9.

1.3.2 Compliance with Approval Conditions 1.2.2 will be demonstrated by:

1.3.2.1 Purchasing an EPA certified engine certified to meet the emission standards for the same model year (2008) and maximum engine power (129 kW).

1.3.2.2 Installing and configuring the engine according to the manufacturer's specifications.

1.3.2.3 Operating and maintaining the engine in accordance with manufacturer's specifications.

1.3.3 Compliance with Approval Condition 1.2.3 will be demonstrated by use of fuel containing no greater than 0.0015 weight percent sulfur (15 parts per million by weight).

## **2.0 NOTIFICATIONS AND SUBMITTALS**

### **2.1 Addressing**

Any required notifications and reports required under these Approval Conditions must be sent to:

Washington State Department of Ecology  
Nuclear Waste Program  
3100 Port of Benton Boulevard  
Richland, Washington 99354

### **2.2 Recordkeeping**

Specific records will be kept on the Hanford Site by the Permittee and made available for inspection by Ecology upon request. The records must be organized in a readily accessible manner and cover a minimum of the most recent sixty (60) month period. The records to be kept must include the following:

1. Visual Emission surveys conducted pursuant to Approval Condition 1.3.1 and subsections.
2. Manufacturer's engine certification(s), required by Approval Condition 1.3.2.1 will be retained from initial use to a minimum of sixty (60) months following retirement from use.
3. Maintenance records for maintenance conducted pursuant to Approval Conditions 1.3.2.2 and 1.3.2.3.
4. Operations and Maintenance (O&M) manuals for all equipment, procedures, and controls associated with the activities that have the potential to affect emissions to the atmosphere.
5. Manufacturer's instructions.
6. Vendor's certification for diesel fuel quality for all purchases.

### **2.3 Reporting**

Emissions will be compiled into estimates and reported annually, beginning as part of the calendar year 2012 non-radioactive inventory of airborne emissions, pursuant to WAC 173-400-105.

### 3.0 GENERAL CONDITIONS

All plans, specifications, and other information submitted to Ecology relative to this project and any authorizations or approvals or denials in relation thereto shall be incorporated herein and made a part thereof.

- 3.1 Availability of Order and O&M Manual:** Legible copies of this Order and the O&M manual shall be available to employees in direct operation of the generator and be available for review upon request by Ecology.
- 3.2 Discontinuing Construction or Operations:** It shall be grounds for rescission of this approval if physical construction or operation is discontinued for a period of eighteen (18) months or more. Ecology may extend the 18-month period upon request.
- 3.3 Compliance Assurance Access:** Access to the source by representatives of Ecology or the EPA shall be permitted upon request. Failure to allow such access is grounds for enforcement action under the Federal Clean Air Act or the Washington State Clean Air Act, and may result in revocation of this Approval Order.
- 3.4 Equipment Operation:** Operation of the generator and related equipment shall be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with the O&M manual, unless otherwise approved in writing by Ecology.
- 3.5 Activities Inconsistent with the NOC Application and this Approval Order:** Any activity undertaken by the permittee or others, in a manner that is inconsistent with the NOC application and this determination, shall be subject to Ecology enforcement under applicable regulations.
- 3.6 Obligations under Other Laws or Regulations:** Nothing in this Approval Order shall be construed to relieve the permittee of its obligations under any local, state or federal laws or regulations.
- 3.7 Modifications:** Any modifications to the generator system's operating and maintenance procedures, contrary to information in the NOC application or manufacturer's directions, shall be reported to Ecology at least 60 days before such modification. Such modification may require a new or amended NOC Approval Order.

### YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

### ADDRESS AND LOCATION INFORMATION

| Street Addresses                                                                                                                                                                                                               | Mailing Addresses                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Department of Ecology</b><br/>Attn: Appeals Processing Desk<br/>300 Desmond Drive SE<br/>Lacey, WA 98503</p> <p><b>Pollution Control Hearings Board</b><br/>1111 Israel Road SW<br/>Suite 301<br/>Tumwater, WA 98501</p> | <p><b>Department of Ecology</b><br/>Attn: Appeals Processing Desk<br/>PO Box 47608<br/>Olympia, WA 98504-7608</p> <p><b>Pollution Control Hearings Board</b><br/>PO Box 40903<br/>Olympia, WA 98504-0903</p> |

This Authorization may be modified, suspended, or revoked in whole, or in part, for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this authorization;
2. Obtaining this authorization by misrepresentation, or failure to fully disclose all relevant facts.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provisions of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances, and the remainder of this authorization, shall not be affected thereby.

The New Source Review Fee has been assessed according to WAC 173-455. No approval of a permit or service for any activity covered in this Order will be valid until the required fee is paid in full.

**DATED** at Richland, Washington, this XX<sup>th</sup> day of September 2012.

**REVIEWED AND PREPARED BY:**

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Philip Gent, P.E.

**APPROVED BY:**

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Jane A. Hedges